# ATACTOCORIS PERNERI, N. SP., A NEW APTEROUS CARVENTINAE FROM JAMAICA (HETEROPTERA: ARADIDAE)

#### **ERNST HEISS**

Entomology Research Group, Tiroler Landesmuseum, 2A J. Schraffl-Strasse, A-6020 Innsbruck, Austria.

Abstract.—The first record of the monobasic genus Atactocoris since its description 30 years ago is reported and the new species A. perneri, is described. A habitus of both sexes and the male genital structures of A. perneri are figured. Additional data are given for the female holotype and only known specimen of the type species, A. farri Kormilev, 1964.

Key Words: Heteroptera, Aradidae, Carventinae, Atactocoris, new species, Jamaica

The genus *Atactocoris* was created by Kormilev (1964) to contain the species, *A. farri* Kormilev from Jamaica. The description was based on a single female and no further specimens have been reported since. I have recently had the opportunity to collect additional material that proved to belong to a new species which is described and figured below.

The holotype of *A. farri*, preserved in the collection of the Institute of Jamaica in Kingston is redescribed.

Measurements are given in millimeters.

## Atactocoris perneri Heiss New Species Figs. 1–5, 7–12

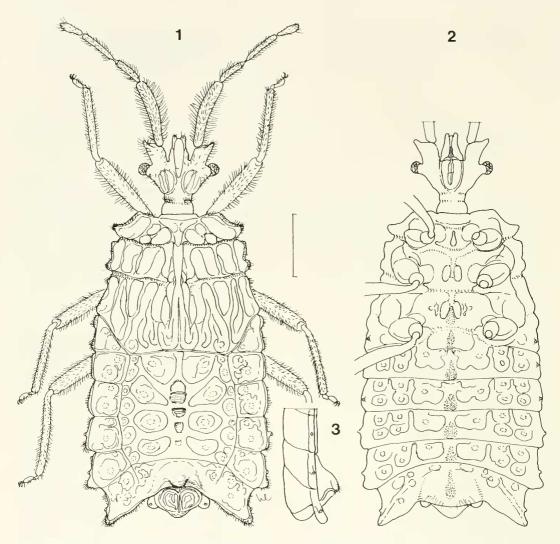
Diagnosis: Distinguished from the only known species of this genus, A. farri, by smaller size, shorter antennae and antennal segment I distinctly shorter than width of head across eyes (longer in A. farri). In the female it is further separated by shorter posterolateral projections of tergite VII (Figs. 4, 6).

Description: Male. Apterous; body elongate, smooth and shiny beneath incrustation that usually conceals the taxonomically

important cuticular structures. Head, antennal segments I to III, and legs with long erect bristles, lateral borders of body beset with shorter ones which are partly present also on dorsal and ventral surface.

Head.-Wider than long (1.31:115) (length measured from apex of genae to transverse furrow delimiting the vertex posteriorly); anterior process of genae slightly produced over clypeus, its apex rounded. Antenniferous tubercles cylindrical with pointed anterolateral process. Eyes small, stalked. Postocular portion of head strongly converging; neck with 2(1 + 1) transverse bladelike elevations that bear a tuft of long bristles. Vertex with a median elevation that is separated by deep curved sulci from rugose lateral portions. Antennae about twice as long as width of head across eyes (2.70: 1.39), relative length of antennal segments I:II:III:IV = 1.15:0.45:0.72:0.37. Antennal segment I distinctly shorter than width of head (1.15:131 = 0.88). Rostrum short, not reaching closed elevated border of wide rostral groove, rostral atrium slitlike.

Thorax.—Pronotum about 4.5× as wide as long with an ill defined collar. Lateral margins sinuate, thickened, elevated and



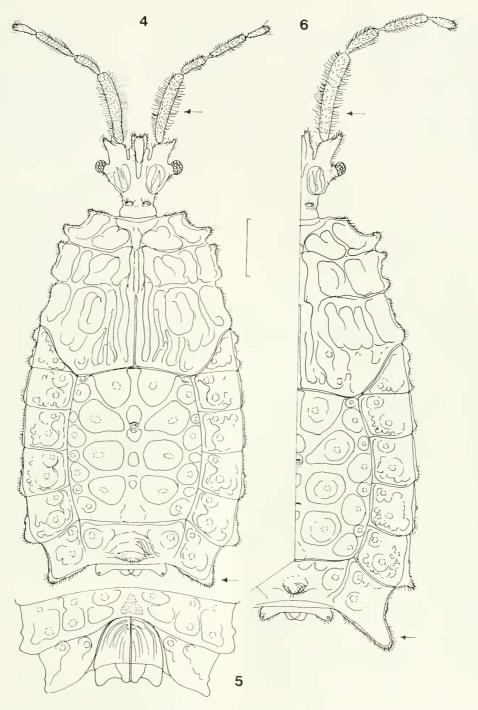
Figs. 1–3. Atactocoris perneri, n. sp., holotype male. 1, dorsal view; 2, ventral view, pilosity omitted; 3, lateral view of terminal segments. Scale 1 mm.

granular, posterolaterally produced and converging to angular anterolateral corners. Disc with smooth oblique elevations separated by deep furrows, medially with a small longitudinal ridge that is narrowed anteriorly and transversely depressed marking the posterior limit of pronotum.

Metanotum wider than pronotum with sinuate lateral margins that are also projecting, thickened and elevated. Separated from pronotum and metanotum by deep transverse furrows laterad of median ridge that extends posteriorly over fused metanotum and tergites I + II. Disc with smooth longitudinal elevations, deeply excavated laterad of the median ridge.

Metanotum wider than mesonotum, completely fused with tergites I + II, its lateral margins similar to those of mesonotum, converging anteriorly. Fused median ridge enlarging posteriorly where it is incised. Disc with irregular smooth longitudinal ridges that show a certain variability within the examined type series as well as

VOLUME 97, NUMBER 1



Figs. 4–6. 4, 5. Atactocoris perneri, n. sp., female; 4, dorsal view; 5, ventral view of terminal segments. 6. Atactocoris farri, holotype female dorsal view. Arrows indicate distinguishing characters. Scale 1 mm.

the position and extension of the sulcus of the median ridge that may reach the line of the anterior border of metanotum.

Abdomen.—Tergal plate formed by fused mediotergites III to VI with deep depressed glabrous areas and a flat median ridge bearing the dorsal abdominal scent gland openings and smaller depressions of different size. Mediotergites and dorsal laterotergites (Dltg) separated from each other and from thorax by a suture. Surface of Dltg II to VII rugose with deep apodemal impressions, their lateral margin is formed by the reflexed ventral laterotergites which are partly projecting. Dltg I + II separated by a suture. Dltg VII raised medially for the reception of the pygophore, paratergites VIII small, rounded.

Ventral side.—Pro-, meso-, and metasternum and sternites I + II fused but marked by deep transverse furrows. Prosternum with a deep median impression; mesosternum medially with paired deep impressions, the ridge between is partly lowered; metasternum shows similar pits as mesosternum with additional rugosities laterad of them. Sternite III only medially fused to I + II, IV to VII completely separated. Surface of sternites III to VII shiny, deeply excavated around apodemal impressions with a mat median subtriangular area that is also present on fused mediosternites (Mst) I + II, Mst VII (in male) and metasternum. Spiracles II to IV ventral, close to margin, V to VII lateral and visible from above, VIII terminal.

Male genitalic structures (Figs. 7–12).— Pygophore with a median dorsal sulcus flanked by irregular curved ridges covering the exposed part. Upper margin formed by an elevated curved ridge that bears long setae. Parameres long and slender, bladelike, projecting from dorsal opening at rest.

Legs long and slender, trochanters fused with femora, claws with thin curved pulvilli.

Female.—Similar to male but larger and abdomen more rounded laterally. Dltg VII medially with an elevated transverse ridge bearing dense pilosity. Paratergites VIII

short and rounded, reaching apex of tergite IX.

Coloration.—Uniformly dark brown, appendages yellowish brown.

Holotype.—Male, Jamaica, Portland, Fern Hill near Frenchman Cove, in rain forest under bark of rotten log 1.3.1993 leg. F. Perner and E. Heiss. The holotype is presented to the Tiroler Landesmuseum Innsbruck and deposited as permanent loan in the collection of the author.

Paratypes.—24 males and 6 females collected with holotype. 2 males and 2 females are from Jamaica, Portland, Sherwood forest near Dragon Bay on dead log of Akee tree (*Blighia sapida* König, Sapindaceae) 24.2.1993 leg. E. Heiss. Paratypes also will be deposited at National Museum of Natural History, Washington, D.C., and Institute of Jamaica, Kingston, and the collection of E. Heiss.

Measurements.—Holotype male: Length 6.3 mm; thorax length 2.2 mm; max. width of pronotum 2.1 mm, mesonotum 2.3 mm, metanotum 2.65 mm. Width of abdomen across tergite V 3.0 mm, VI 2.9 mm, VII 2.35 mm. Ratio length of antennae/width of head across eyes 2.05, ratio antennal segment I/width of head 0.88. Male paratypes range in size from 6.2–6.6 mm, females from 7.6–8.2 mm.

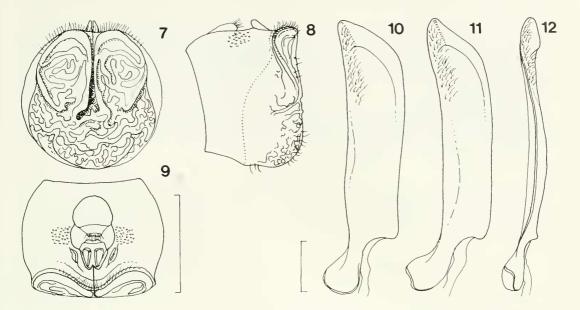
Etymology.—Named in honour of my friend F. Perner on the occasion of his 60th birthday and in recognition of his efforts and enthusiasm when searching for apterous Aradidae.

## Atactocoris farri Kormilev Fig. 6

Atactocoris farri Kormilev 1964:115.

The female holotype has been cleaned from incrustation for comparison of cuticular structures with those found in *A. perneri*, n. sp. As the description given by Kormilev is sufficient, only some additional information is given.

The characteristic depressions on pro-, meso- and metasternum are also present and



Figs. 7–12. Atactocoris perneri, n. sp., male genital structures; 7, pygophore caudal view; 8, lateral view; 9, dorsal view. 10–12, left paramere in different positions. Scale Figs. 7–9, 0.5 mm, 10–12, 0.1 mm.

might be of generic importance, as a different extension and position of such pits were observed in other apterous Carventinae genera. Contrary to the description and figure 4 given by Kormilev (1964) there are no postocular tubercles present.

Measurements of the cleaned specimen.—Length 9.1 mm; thorax length 2.95 mm, width of pronotum 2.92 mm, mesonotum 3.3 mm, metanotum 3.85 mm; width of abdomen across tergite V 4.2 mm, VI 4.05 mm, VII 3.45 mm. Head width/length 63/56, antennal segments I:II:III:IV = 67: 28:39:19. Ratio length of antennae/width of head 2.43, antennal segment I/width of head 1.06.

Discussion: From the Neotropical Region 27 genera of Carventinae are known, of which 24 are apterous. Kormilev and Van Doesburg (1977) provided a key for the then known 11 apterous genera (12 catalogued by Kormilev and Froeschner 1987), which was also the basis for a new key given by Grillo Ravelo (1988) where he included his 12 new genera from Cuba.

The genus *Apterocoris* belongs to a group of three genera characterized by closed labial atrium, tergites I + II fused with metanotum and Dltg II + III separated by a suture, including also *Peggicoris* Drake (1956) and *Rhysocoris* Usinger and Matsuda (1959).

Peggicoris is distinguished by its uninterrupted median longitudinal ridge, which extends from pronotum to anterior margin of abdominal disk; *Rhysocoris* by narrow and long head without stalked eyes and the position of spiracles which are all lateral and visible from above. The 12 genera described from Cuba by Grillo Ravelo are difficult to recognize without respective illustrations and belong to another group of genera with fused Dltg II + III.

## **ACKNOWLEDGMENTS**

Special thanks are due to Mr. T. Farr, Kingston, Jamaica, for the loan of Aradidae under his care and Mr. Fred Perner, Innsbruck, for his able assistance during our collecting trip to Jamaica.

### LITERATURE CITED

- Drake, C. J. 1956. New Neotropical genera and species of apterous Aradidae. Journal of the Washington Academy of Sciences 46: 322–327.
- Grillo Ravelo, H. 1988. Los Aradidos (Heteroptera) de Cuba I Subfamilia Carventinae. Universidad Central de Las Villas Cuba. 113 pp.
- Kormilev, N. A. 1964. Neotropical Aradidae XIII (Heteroptera: Aradidae). Journal of the New York Entomological Society 72: 112–119.
- Kormilev, N. A. and R. C. Froeschner. 1987. Flat bugs of the world. A synonymic list (Heteroptera: Aradidae). Entomography 5: 1–246.
- Kormilev, N. A. and P. Van Doesburg. 1977. A new genus and new species of the Carventinae from Surinam (Hemiptera, Aradidae). Zoologische Mededeelingen 52(1): 1–6.
- Usinger, R. L. and R. Matsuda. 1959. Classification of Aradidae. British Museum (Natural History), London. 410 pp.